

Shell  
Answer # **20**  
Book

# THE CHEMICAL DO'S AND DON'TS BOOK

Over two dozen things you should know about  
the safe use and safe storage of household products



By Jim Bonin, Shell Product Safety Specialist



Come to  
**Shell for answers**

Most people know the rules about handling familiar household chemical products. But they take careless risks anyway.

Do you? Find out by reading on.

**C**hemicals are a bigger part of your life than you might think. They help grow the food you eat. Your vitamins are made from chemicals. They're in your car, your clothing. Chemicals are used in the paper and inks that make up this book.

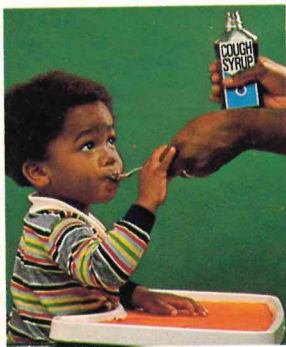
There are thousands of different household chemical products on the market. Products like detergents, drain cleaners, insecticides, spot removers and the like. Products like these *work* because they contain special chemicals.

Here's my point. Chemicals can make life a lot easier when we use them as we should. But they can be dangerous when we misuse them.

Recently I asked a team from the National Safety Council to join me in inspection tours of 50 homes in the Phoenix area to get a firsthand look at how careful people are about the chemical products in their homes.

Here are the two biggest shockers we found. Nine out of ten homes had potentially dangerous chemicals stored where children could easily reach them. And "Dad's territory," the garage, was a multi-threat danger area in over 80 percent of the homes surveyed.

How about your home? Are *you* doing something wrong? To find out, read on. You might head off a serious accident.



*Whoever you are, wherever you are, your life was probably made a little easier today by household chemical products. They help you in your workshop and garage. They help you stay healthy. They help in your laundry, your kitchen—all through the house.*





*Don't pour charcoal starter or any other combustible onto hot coals. It can flare up and burn you, as demonstrated above by our man in the asbestos suit.*



*Don't use hairspray around an open flame. It can ignite and burn like wild-fire. Glass shield keeps this mannequin's hair from catching fire.*

## **Q. Okay, where can I begin to make my home safer?**

**A.** I'd say begin with a healthy respect for the flammable characteristics of certain chemicals. People have put gasoline-soaked clothing into washing machines. People have doused themselves with rubbing alcohol and then lighted a cigarette. People have used gasoline to clean their floors. People have cleaned their paintbrushes in paint thinner right next to an open flame. Sounds crazy, but whether they were unaware or just careless, these people went to the hospital.

Don't let it happen to you. Be alert to the possibility of danger when you're handling household chemicals.

## **Q. I'm not a chemist—what will help keep me from making mistakes?**

**A.** Just do some simple reading.

Don't *buy* any household chemical product without reading the label

first. Know how to handle it before you bring it into your home.

Don't *use* any product without reading the label once again. If there's a possibility of danger, the label should say so. It should specify what kind. (For instance: "Warning:

### **About the author**



*Jim Bonin has been closely involved with chemicals since 1965, the year he joined Shell as a toxicologist.*

*Jim's work has focused on product safety and better labeling ever since.*

*This puts him in close contact with such safety authorities as the Consumer Product Safety Commission and the Food and Drug Administration.*

*In 1973 Jim was selected for the President's Commission on Executive Interchange Programs. This resulted in a one-year sabbatical from Shell and it gave him the opportunity to work directly for the Environmental Protection Agency. While there, Jim assisted in the publication of another book on safety: "The Label Hazard."*

Avoid contact with eyes and mucous membranes.") It should also tell you what to do in case of an accident. ("Flush eyes thoroughly with water. Get medical attention.")

**Q. I'm fairly careful about storage. What mistakes could I possibly be making?**

**A.** If you're like most people in my survey, you could be making mistakes all over the house.

Don't store flammables such as gasoline anywhere near gas water heaters or oil burners. Don't store gasoline in anything but an approved safety can.

Don't keep any product labeled "Poison," "Danger," "Warning," or "Caution" anywhere within reach of young children. And don't rely on taste or smell to repel them—some harmful products can taste sweet or smell good.

Don't forget things you may not consider to be chemicals. For instance: don't leave colognes, perfumes, or food concentrates like vanilla extract within children's reach. The same for after-shave and after-bath lotions. Don't leave liquor out. Alcohol can poison children.

Don't keep any medicines or vitamins within reach of young

**Some storage practices we found in the Phoenix area**



*This mother has an active youngster at home – she never stores her household products under the sink.*



*This woman puts medicines on a high shelf but also takes the precaution of telling her children why they mustn't touch.*



*Some people stored products in secondary containers like these. Not a good idea, even if labeled clearly. Throw them out.*





*Get in the habit of reading labels like these when you buy household products. And reread the label every time you use the product. Take as much care with a product marked "Caution" as you do with one labeled "Poison."*

children. Don't save outdated prescriptions; throw them out.

Don't store non-food chemical products with your foods. One mistake could poison you.

**Q. I don't have kids in my house. Why should I be so safety-conscious?**

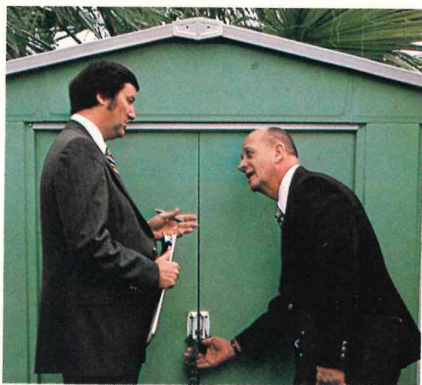
**A.** To keep from becoming an accident victim yourself. Chemicals can be dangerous. They can hurt you if

you misuse them. Here are some examples: A pile of rags soaked with linseed oil can burst into flames. Mixing bleach with ammonia can produce dangerous chlorine gas. So don't experiment with your own cleaning combinations. And don't exceed strengths recommended on the label. Mixing stronger solutions can damage your skin.

Hundreds of thousands of Americans can expect to be poisoned or in-



*If only more homes were like this one. The most dangerous products are stored in an outdoor shed, under lock and key.*



*We found the lock to be secure. When grandchildren visit this home, the potential for accidents is greatly reduced.*

jured this year in accidents involving the misuse of household chemical products. Not just children—everyone. Here's something you should know; it's a fact that really surprised me. A larger number of adults die from these accidents than do children.

### **Q. What should I do about poisoning accidents?**

**A.** Prepare yourself for an emergency right now. It can save a life, maybe your own.

Look up the number of your local Poison Control Center and post it by every telephone in your home. If you live in an area not covered by a center, get the number of your doctor,

#### **Some more general rules for preventing accidents**

- Never use flammables like paint thinner, naphtha, or gasoline near a pilot light or other open flame. You can start a fire.
- Never use aerosols like hairspray or bug killers near an open flame. You can become a human torch.
- Never leave loose capsules or pills around. Some medicines look like candy. You can poison a child.
- Never throw aerosol cans into an open fire or incinerator; never store them in hot places. You can make them explode.
- Never leave alcohol-based items like perfume within reach of young children. You can poison them.
- Be especially careful with dry chlorine pool chemicals. Never store in a hot shed near combustible materials. Never reuse the container. Never use a scoop that has not been cleaned first.



Post emergency numbers at all phones, as in this Phoenix home. Get free stickers from Shell—see how on page 8.



Save the container if someone is poisoned. Read emergency information, then call the authorities. They will want to know the contents.

the rescue squad, the fire and police departments. These numbers should also be posted on or near your phones.

Do keep an emetic handy to induce vomiting. Never use one on your own judgment—get expert advice first. Ask your Poison Control Center or your doctor when to use an emetic. Some substances like lye, acid or furniture polish can cause as much trouble coming back up as they did going down.

If an accident happens, do save the container and some of its contents. The authorities will need to know the ingredients so that treatment can be recommended.



**Q. Then what's the real key to keeping a home safe?**

**A. You are. Here's what it takes.**  
Handle chemical products carefully.  
Read the labels. Use only as directed.  
Store everything properly.

Chemical products are like many other conveniences around the house: a hammer, a chain saw, or electricity. Use them correctly, and they serve you well. Use them incorrectly, and they can do you harm.

## Home Safety Quiz

Yes No

1. Do you have emergency numbers (police, fire, Poison Control Center) posted at every phone?
2. Do you keep an emetic in the house to induce vomiting?
3. Do you know when you should *never* induce vomiting?
4. Do you know why it's important to save the container when someone is accidentally poisoned?
5. Do you keep perfumes, colognes, after-shaves and concentrates such as vanilla extract out of the reach of children?
6. Do you read the label when you're buying a household chemical product?
7. Do you store garage items such as gasoline, paint and solvents away from pilot lights and other ignition sources?
8. Do you keep extremely hazardous products like drain cleaners, bleach and ammonia out of the reach of children?
9. Do you discard leftover prescription drugs as soon as you stop taking the medicine?
10. Do you store poisons such as bug killers in separate cabinets from foods?

**Answers:** Every one of your answers should be “yes.” One “no” means you’ve failed the test. And every additional “no” answer weakens your home safety program. I suggest you spend the few minutes it’ll take to reread this book.

## Can you spot the safety errors in this picture?

(Answers appear under picture, upside down.)



Rags soaked in flammable oil can burst into flames—throw them out. Outdated medicines should not be saved. Products with no labels or illegible labels should be thrown out. Aspirin bottles should always be kept capped. Pills should always be kept in a container; a child could mistake them for candy. Food products should never be stored with potentially dangerous household chemicals.

# CHEMICAL DO'S AND DON'TS FOR YOUR HOME

- Do keep separate storage areas for food and non-food chemical products; never store them together.
- Don't store any product labeled "Poison," "Danger," "Warning," or "Caution" within reach of young children.
- Don't store products you've transferred into secondary containers even if labeled clearly; throw them out.
- Don't leave perfumes, colognes, after-shaves, liquor, or food extracts within reach of young children.
- Don't leave loose pills around; some medicines look like candy. Don't save outdated prescriptions.
- Do stay away from any open flame when using hairspray or bug spray, when cleaning paintbrushes with solvent, or filling the lawn mower with gasoline.
- Don't store aerosol cans in a hot place; don't discard them in burning trash or incinerators.



...peel off and paste these where you'll read them...

## EMERGENCY NUMBERS

Phone Control Center \_\_\_\_\_ Fire \_\_\_\_\_

District \_\_\_\_\_ Police \_\_\_\_\_

What to do in case of a chemical accident:  
1. Call for expert advice and assistance immediately.  
2. Be ready to identify what did the damage; have the container handy.

## EMERGENCY NUMBERS

Phone Control Center \_\_\_\_\_ Fire \_\_\_\_\_

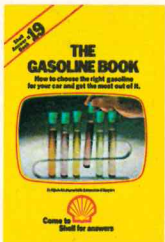
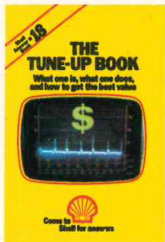
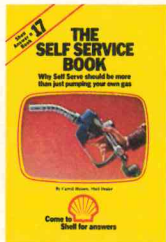
District \_\_\_\_\_ Police \_\_\_\_\_

What to do in case of a chemical accident:  
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## Get these safety stickers from Shell

These Do's and Don'ts can help you prevent accidents; post where you'll

**How to get more answers from Shell:** *Shell Answer Books are free at many Shell dealers' stations. Get them there—or write to Shell Answer Books, P.O. Box 61609, Houston, Texas 77208.*



see them and read them often. Fill in your local emergency numbers on stickers at bottom; detach and place on your phones.

Pick up a free sheet of these stickers from your nearest participating Shell dealer. Or write Safety Stickers, Shell Oil Company, P.O. Box 61609, Houston, Texas 77208.

## Q. Any more questions?

**A.** If you have any other questions about the material you've read here, please write to me: Jim Bonin, Shell, P.O. Box 61609, Houston, Texas 77208.

Shell would like to thank the National Safety Council and the Houston Fire Department for their cooperation in preparing this book. Shell would also like to thank the Consumer Product Safety Commission for reviewing all the material herein. This does not imply an endorsement of Shell products by these organizations. The jurisdiction of the Consumer Product Safety Commission does not cover all the products discussed in this book.



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